

Vol. 14, No. 8

AUGUST, 1933

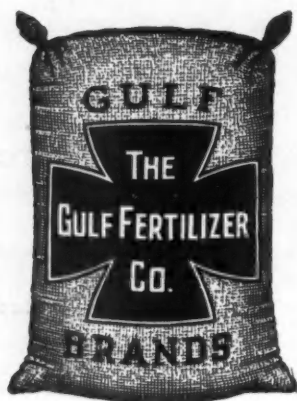
15 Cents a Copy

# Florida Citrus Fruits At The World's Fair

By  
George H. Clements

ASSOCIATED PUBLICATIONS CORPORATION, BARTOW AND TAMPA, FLORIDA  
THE CITRUS INDUSTRY . . . . THE FISH AND OYSTER REPORTER . . . . BARTOW PRINTING CO.

FLORIDA EXPERIMENT STATION  
GAINESVILLE, FLORIDA



# *Real* BALANCED FERTILIZERS

Oftentimes citrus trees need a light application of well-blended fertilizer at this time of the year to prevent them from "breaking" under crop strain. Growers will find Gulf Imperial Top Dresser with Kaltrogen excellent for such an auxiliary application. This tried and tested Brand has been used by hundreds of successful growers and has met with unusual favor. Due to its popularity a number of imitations have appeared on the market. But there is only one Imperial Top Dresser with Kaltrogen. Insist on the genuine product.

More and more growers are recognizing the fact that Gulf Brands are **real** balanced fertilizers – plant foods that actually return to the soil the many elements taken out by growing crops. Made from only the finest materials – rich in long-lasting, natural organics – Gulf Brands assure your crops the maximum in plant food value. Year in and year out, through good times and bad, they are of the same dependable quality. And with Gulf Brands goes the reliable Gulf Field Service which assures you year-round grove inspection, and dependable advice about plant diseases, pest control and fertilization practices. Insist on Gulf Brands and Gulf Service for both grove and truck farm this year. Then watch the difference.

## THE GULF FERTILIZER CO.

Tampa, Florida

Stocks At Convenient Points

## Features In This Month's Issue

---

Text of Tentative Florida Agreement Under Agricultural Adjustment Act

Judge Says Grapefruit Clause In Arsenic Law Should Not Be Enforced

Strong Raises Question On Important Plant Quarantine

Railroads To Continue Rate Reductions On Citrus

Industrial Recovery Act Will Benefit Farmers

Davis Foresees Expanding Rule For Co-Ops

Florida Citrus Fruits At The World's Fair  
By George H. Clements

Text Of Tentative National Agreement

Fruitmen's Club Will Be Reorganized

The Fertility of Florida Grove Soils  
By Prof. E. L. Lord

Fertilizer Industry Presents Code

The Health Value Of Citrus Fruits

A New Market For Citrus  
By H. E. Turner

Soil Bacteriology  
(Concluded From July Issue)

Tung-oil Trees  
By E. B. Ferris

A National Control For Citrus  
Editorial

Impressions  
By Frank Kay Anderson



# Betokening Confidence

of fruit growers,  
of fruit sellers,  
of the consuming  
public everywhere.

American Fruit Growers Inc.

Florida Division  
Orlando, Florida





Publication office at Bartow, Florida. Executive and Editorial offices: 312-313 Wallace S. Bldg., Tampa, Florida. Entered as second class matter February 16th, 1920, at the post office at Tampa, Florida, under the act of March 3, 1879. Entered as second class matter June 19, 1933, at the post office at Bartow, Florida, under the act of March 3, 1879.

## Florida Citrus Fruits At The World's Fair

By GEORGE H. CLEMENTS

One of the most frequently photographed spots on the exposition grounds is the Florida orange grove, each photographer, whether amateur or professional giving as one of his or her reasons, that they want to have tangible evidence, years hence, to prove to Doubting Thomases, that oranges did grow and that orange trees once bore ripe fruit, green fruit and an abundance of blossoms, on the shores of Lake Michigan.

The orange grove is visited daily by orange growers and grapefruit growers from, not only Florida but Texas, Arizona, California and the Hawaiian Islands, with occasional visitors from the Phillippines, South Africa, Palestine, Italy and Spain, and all marvel to find such an abundance of bloom at this time of year. The only solution offered by the Florida caretakers of the grove is that the trees have become confused by the change in environment and are putting out blossoms to hide their embarrassment.

For the most part those attracted to the orange grove are almost reverent in their admiration and make no attempt at touching the fruit or blossoms. There are others however, who require careful watching to prevent their snitching off the fruit or cutting

the blossoms. Women often ask if they may get a close up breath of the perfume and just as often the reverential request is granted, to the great satisfaction of those permitted to bury their noses in a mass of orange blossoms.

The section of Florida Hall devoted to displays of exotic tropical fruits—the kinds which are rarely seen in the markets because of their inability to stand transportation—are always surrounded by great throngs who listen to the lecturers and ask questions freely between lectures. Often in those throngs are found Floridians from the more northern counties of the state who never have visited the tropical sections of South Florida. The exhibits made at Chicago are as interesting to them as to those who have spent their lives in the far north. The Florida exhibit is selling Florida to Floridians as well as to the people of other states.

The Florida exhibit continues to attract great crowds of world's fair visitors, the daily average in Florida Hall now being in excess of 55,000. The daily average at the Florida Tropical Home in the Home Planning group being approximately 15,000. Owing to its large area with streets all around it and through it, an esti-

mate of the crowds which visit the Florida Orange Grove and Miniature Everglades Garden, cannot be made with any degree of accuracy as in the other cases, but a good guess is that it is seen by not fewer than 100,000 every day in the week and since the trees have been blooming so profusely during the past few weeks the chances are that even that figures is far under the mark.

A register for Florida visitors is maintained at the registration booth in Florida Hall and while not all Floridians may have inscribed their names, the book already contains the names of more than 9,000 residents of the state who have seen and commented upon the splendid showing made. This is said by officials of the exposition to be the best registration made by any of the "distant" states.

Other registrations made by Florida are confined to those who are interested in the state and want to know more about it. As has been told, those names are compiled daily and mailed to chambers of commerce and organized realty boards throughout Florida with a hope that literature will be sent and the interest in the state aroused by the exhibit at Chi-

(Continued on page 25)

# The Fertility of Florida Grove Soils

By Prof. E. L. LORD

One of the most common questions which we get from the horticulturists from other parts of the United States when visiting Florida is: "How is it possible to grow good crops of fruit on soils as deficient in fertility as the Florida sandy soils appear to be?" In the minds of these visitors all sandy soils are infertile as compared with the heavy loamy soils. The trouble is that these visitors overlook the effect of temperature and adequate rainfall in stimulating soil activity. This high level of soil activity means rapid growth and heavy yields when soil conditions are favorable; but it also carries with it a rapid destructive action which will invariably result in serious damage to the fertility of the soil if not counterbalanced by sound practices which will rebuild the soil at an equally rapid rate.

Now, it is well known that orange and grapefruit trees live to a very great age, well beyond the span of a century. The Japanese call the sour orange tree daidai, which means "from generation to generation," and there are well authenticated cases of sour and sweet orange trees three or four hundred years old. Why, then, is it true that most groves in this state over twenty years old show a decline in production and a greater or lesser percentage of unhealthy trees?

The ability of the orange tree to regenerate new wood and foliage rapidly and get back into heavy production when soil conditions are changed is marvelous, something not found to the same degree in other fruit trees. It is unfortunate, however, that most citrus growers are not sufficiently familiar with the underlying practices which maintain or increase soil fertility so that they are able to keep their groves indefinitely in the class of heavy producers.

A careful study of the older groves of the state shows that there is something radically wrong with the commoner methods of soil management, as it is generally true that these older groves usually show a decline in production and an increasing percentage of unhealthy trees. The

trees become biennial producers, frenching, dieback and foliation are common physiological conditions, the fruit becomes coarse and more or less deficient in quality. The owner of such a grove is at his wits end as to what to do with it, as it is unsaleable and unproductive, or, if productive, the fruit is of such poor quality that the grove is unprofitable.

The owner of such a grove is often totally unprepared to correct the condition, as he has learned one set of practices too well, and anything learned too well is difficult to unlearn. In other words, the same set of practices which have produced the conditions that I have described (even though such practices may have been correct for a young grove) have been learned so well that it is difficult to convince him that he must make radical changes in his methods of soil management.

Assuming that the above statements are correct, and no one who has had opportunity to study the changes which have taken place can reasonably doubt it, what are the conditions which are characteristic of these older groves as compared with groves on the same type of soil? The primary condition apparent is a definite soil acidity. But the acidity is no so much one of degree as one of kind. In virgin soils the dominant soil acids are carbonic and nitric, while in the old grove soils the principal acids are the strong mineral acids, sulphuric and hydrochloric. These acids are usually at a minimum in virgin soils.

As Haas has recently pointed out that frenching of citrus trees can be produced by an excess of sulphate ions in the soil solution accompanied by a deficiency of soluble calcium, it is not strange that this physiological disease is common in many old groves. This condition is increased when there is a period of low rainfall, as decreasing the water content of the soil increases the difficulty by reducing materially the amount of soluble calcium in the soil solution. Ammonia salts tend to increase the trouble by increasing the rate of calcium loss from the soil and decreasing the available calcium. Wherever

they are used on such soils it is highly important that both calcium salts and organic matter be added regularly, in order to compensate for the changes that will take place.

If the grower who has a grove showing these conditions continues to add to the soil a good supply of all of the major nutrients with the exception of calcium, the tree will continue to set heavy crops, but the low level of calcium in the tree and in the soil sooner or later results in disaster. In many cases a heavy crop of fruit spells the finish, as the fruit will remove all of the active calcium from the leaves and branches. A tree brought to this situation will often die outright with the crop of fruit still hanging on the tree, but if it does not die immediately, it is so weakened that it will take a long time to bring it back into heavy production.

What is the grove practice that will relieve such a situation? A fairly high level of nitrogen, phosphorus and potash in the soil solution, with gradual and light applications of calcium salts to correct the soil acidity, reduce the toxicity of the accumulated sulphates and chlorides, stimulate soil nitrification and build up the calcium content of the tree so that it can absorb nitrates and other nutrients at rates that will induce heavy growth and good yields. When this is done carefully, most of the so-called physiological diseases will disappear from the grove and it will become productive and profitable.

## MAKING HOME ARTICLES

Dade County home demonstration club members are going in a big way for making of home articles from tropical materials, says Miss Patsy Norton, home demonstration agent. At recent club meetings over the county each woman was asked to bring some home-made article, like hot dish mats, hand made rugs, fans from coconut fronds, and the like. Many fine articles were brought, and many of the other members have learned to make them.



# Tung-oil Trees

By E. B. FERRIS, Vicksburg, Miss., In "Better Crops With Plant Food."

It is seldom that one finds a newly introduced crop that has so impressed the thinking public with its possibilities as has the tung-oil tree recently brought to this country from China.

While engaged for many years in agricultural experimentation, the writer first heard of this tree less than 10 years ago when its possibilities for a large section of the South were being discussed by the horticulturist of the Southern Railway at a local Chamber of Commerce meeting. This led soon after to the setting of a few trees and the planting of a few nuts on the South Mississippi Experiment Station at Poplarville. These trees when three years of age bore a few nuts and since have rapidly increased their production. Other plantings had been made previously in different sections of the South, but this generally had not been known.

The tung-oil tree appears to be native to China where it grows wild on all types of soil from the mountains to the sea, the only limiting factors being temperature and the ability of the soils to grow other crops of greater commercial value. In China the oil is expressed by the crudest hand methods, but is so highly regarded as an article of commerce that great care has to be exercised to prevent adulteration with all other kinds of vegetable oils. It has long been exported from China to the countries of the world and especially to this country which imports annually millions of dollars worth, largely used in making waterproof varnishes that, in turn, enter into the manufacture of innumerable articles of commerce. So important is this oil in the paint and varnish trade that the manufacturers of these products have had much to do with the introduction of the tung-oil trees into the country. It is said that no satisfactory water-proof varnish can be made without the use of some of this oil.

The possibilities for the use of this oil by American manufacturers are many, and if produced as a domestic product, its increased consumption here would be nothing short of phenomenal. The oil, however, is not the only thing of value in the nuts, the meal and hulls left as by-products having high value as fertilizers. However, being poisonous to animals, they can never equal the by-products

Many Florida citrus growers with surplus acreage at their disposal are giving thought to the planting of tung-oil groves. To such growers, the accompanying article by E. B. Ferris, of Vicksburg, Miss., in a recent issue of "Better Crops With Plant Food" may be of interest.

of our cotton seed.

## Study Adaptation

In very recent years scientists have been studying the possibilities of these trees for parts of the South adapted to their growth. They have been aided in every way not only by the paint and varnish manufacturers, but as well by the owners of large bodies of cut-over lands interested in finding a crop suited to such lands and one that would not in the end disturb the business of the country by further increasing its agricultural surpluses. Tung oil seems to meet the demand better than any other crop of recent introduction. Everything goes to indicate that it is adapted to all the soils of the Gulf Coastal Plain, and the fact that it was unknown to the general public five years ago and has already been planted to thousands of acres in a single county certainly indicates that it has great possibilities.

Visiting recently the experiment station where the initial plantings had been made in 1927, we were told that a single individual had already set 9,000 acres to the trees and had recently purchased an additional 13,000 acres which would be planted in the near future. The director of this station also said that within a radius of 40 miles of this original planting some 18,000 acres had already been set and that this acreage would be doubled within a year. These plantings are only being made by large operators but by innumerable small farmers who are planting a few acres on many farms, utilizing lands not now needed or suited for general farm crops. The American Tung-oil Products Corporation has recently come into the county and already has two million seedlings. They will plant these and others that they grow on their own lands or cooperatively with local land owners, the object being to increase production and thus make a profit out of handling the crop.

Little is definitely known about the best methods of preparing and ferti-

lizing the land or of cultivating the trees when planted. The largest operators are using immense caterpillar tractors to pull specially designed subsoil plows which on the rough cut-over lands cut all roots, tear down small trees, and actually pull up the large pine stumps. These are run on contour rows about 20 feet apart where the trees are to grow 15 to 20 feet apart. Smaller plows follow and prepare a seed-bed where the trees are set or the seed are planted where they are to grow. On such large plantings little cultivation is done, the chief care being to protect the young trees from the hazard of fire, likely to occur in fall and winter when grasses growing between will burn. The experiment station serving the section has inaugurated tests to determine the best methods for thus preparing the land.

Some of the larger growers have not yet begun the use of fertilizers, but since the soils of the section are naturally deficient in all three elements of plant food, the general opinion is that the trees will have to be fertilized for successful growth. To this end the experiment station has set aside a number of plats of ground where the needed plant food—nitrogen, phosphorous, and potassium—are varied in many ways, two remaining constant in every series of tests, while the third is varied. Since nitrogen is the most expensive of the three and can be obtained by growing and turning under legumes, this experiment station has included a number of tests where many kinds of summer and winter legumes are turned under annually after being grown between the trees.

The director of this station theorizes that since this tree is grown to produce oil, it may need a higher percentage of potash than is commonly used in fertilizers for the staple crops, and has run the potash in some of his mixtures up to 12 per cent. However, the work of fertilizing the trees in the many ways has been started so recently that no definite conclusions have as yet been drawn. The work with summer legumes has gone to show that the turning under of three crops of 6-week peas in a single season added enough nitrogen to equal 1,399 pounds of nitrate of soda, while similar tests using *Crotalaria spectabilis* showed it

(Continued on page 23.)

# Fertilizer Industry Presents Code

The fertilizer industry presented its Code of Fair Competition to General Johnson, through General C. C. Williams, Deputy Administrator, on August 2. The officials of The National Fertilizer Association who made the presentation were John J. Watson, President; C. T. Melvin, Vice-President; Charles J. Brand, Executive Secretary and Treasurer; and Charles H. MacDowell, who is assisting the Association in its recovery program. In presenting the Code, these officials stated that it had been in preparation nearly three months. "It is the result of the work of a Fertilizer Recovery Committee established in May, the work of which was submitted to a convention of the industry in June", they said. "This convention created a new Fertilizer Recovery Committee representative of every section of the United States. That Committee of 29 members held five meetings, and an Administrative Committee of smaller size four meetings, after which a special committee revised the Code following an informal conference with the Administration."

General Johnson was advised that "every effort has been made to cover the problems of the industry, both from the standpoint of hours of labor and wages and of competitive practices, in such a manner as to enable it to render its appropriate service to agricultural recovery as well as to general recovery."

The Code as presented provides for a maximum 40-hour week, with a minimum of 35 cents an hour in the Eastern and Middlewestern States, 25 cents an hour in the South, and 40 cents an hour in the far West. These rates, if put into effect, will restore the 1929 wages and purchasing power of workers in the industry and are 60 per cent above the rates prevailing at the present time. Child labor, though not an important factor in the fertilizer industry, will be prohibited.

If and when adopted, the Code will govern the operations and marketing practices of approximately 600 fertilizer manufacturers. Fully 80 per cent of the total business is done by the 233 firms that belong to The National Fertilizer Association.

## Fertilizer Recovery Committee

John J. Watson, International Agricultural Corp., 61 Broadway, New York City, chairman.

Charles J. Brand, The National

Fertilizer Association, 616 Investment Bldg., Washington, D. C.

## District No. 1

E. H. Jones, Apothecaries Hall Company, Waterbury, Conn.

## District No. 2

Horace Bowker, The American Agricultural Chemical Company, 420 Lexington Ave., New York City.

T. E. Milliman, Cooperative G. L. F. Mills, Chamber of Commerce Bldg., Buffalo, N. Y.

## District No. 3

B. H. Brewster, Jr., The Baugh & Sons Co., 25 South Calvert St., Baltimore, Md.

C. F. Hockley, The Davison Chemical Co., Baltimore Trust Bldg., Baltimore, Md.

W. W. Price, Smyrna, Del.

W. E. Valliant, Valliant Fertilizer Co., Marine Bank Bldg., Baltimore, Md.

## District No. 4

C. F. Burroughs, F. S. Royster Guano Co., Royster Bldg., Norfolk, Va.

George A. Holderness, Virginia-Carolina Chemical Corp., 629 East Main St., Richmond, Va.

Oscar F. Smith, Smith-Douglass Co., Norfolk, Va.

Thomas H. Wright, Acme Manufacturing Co., Wilmington, N. C.

## District No. 5

J. Ross Hanahan, Planter Fertilizer & Phosphate Co., P. O. Box 865, Charleston, S. C.

A. F. Pringle, Merchants Fertilizer Co., Charleston, S. C.

J. D. Prothro, Aiken Fertilizer Co., Aiken, S. C.

## District No. 6

H. B. Baylor, International Agricultural Corp., Mortgage-Guarantee Bldg., Atlanta, Ga.

J. E. Sanford, Armour Fertilizer Works, Walton Bldg., Atlanta, Ga.

A. D. Strobhar, Southern Fertilizer & Chemical Co., American Bank & Trust Bldg., Savannah, Ga.

## District No. 7

E. A. Brandis, Standard Chemical Co., Troy, Ala.

J. W. Dean, Knoxville Fertilizer Co., Knoxville, Tenn.

## District No. 8

C. D. Jordan, Southern Cotton Oil Co., 210 Baronne St., New Orleans, La.

P. H. Manire, Marshall Cotton Oil Co., 1101 East Grand Ave., Marshall, Texas.

## District No. 9

R. P. Benedict, Darling & Co.,

Union Stock Yards, Chicago, Ill.

L. W. Rowell, Swift & Co., Union Stock Yards, Chicago, Ill.

## District No. 10

Weller Noble, The Pacific Guano & Fertilizer Co., Second Street at Hearst Ave., Berkeley, Calif.

## District No. 11

C. T. Melvin, The Gulf Fertilizer Co., P. O. Box 2790, Tampa, Fla.

R. B. Trueman, Trueman Fertilizer Co., 414 Dyal-Upchurch Bldg., Jacksonville, Fla.

## Sulphuric Acid

E. H. Westlake, Tennessee Corporation, 61 Broadway, New York City.

The following members were appointed an Administrative Committee:

John J. Watson, Charles J. Brand, Horace Bowker, B. H. Brewster, Jr., W. E. Valliant, Oscar F. Smith, A. D. Strobhar, C. T. Melvin.

## MULCHING SLOWS UP DECOMPOSITION OF CITRUS COVER CROP

Gainesville, Fla.,—Mulching definitely slows up the decomposition of a cover crop compared with incorporating it in the soil, according to experiments just concluded at the Florida Experiment Station and announced by Dr. R. M. Barnette, chemist.

*Crotalaria striata* and *Natal* grass were used as cover crops in tanks in which citrus trees were growing and in check tanks where no trees were growing. In half the tanks the cover crop was plowed into the soil, in the others it was used as a mulch. During the 18 months over which the records were taken 87.6 percent of the incorporated *Crotalaria* decomposed compared with 72.2 percent of the mulched *Crotalaria*. With *Natal* grass the figures were 95.9 percent for the incorporated and 74.9 percent for the mulched plots.

About the same relationship was found in the loss of minerals applied in the form of the cover crop. The nitrogen, lime, potash and phosphoric acid, were lost from the soil more rapidly where the cover crop was incorporated in the soil than where it was used as a mulch. A comparison of the leachings from the tanks with and without seedlings showed that the minerals were effectively used by the trees. There was a much greater

(Continued on page 9)



# Davis Foresees Expanding Role for Co-Ops

Cooperative marketing associations, instead of being relegated to the background under the "New Deal" will play an increasingly important role as the plans of the Agricultural Adjustment Administration are crystallized into definite form, it was indicated by Chester C. Davis, of Washington, D. C., director of the production division of the Adjustment Administration, addressing the Institute of Cooperation on the subject of "Production Control Policies and Mechanisms in the Agricultural Adjustment Act."

This view, stated with definiteness, seemed to give the final reassurance to the cooperative leaders that the movement with which they are identified and which has played so large a part in the agricultural life of the United States during the last dozen years will go on to a fuller development under the new dispensation than it has ever enjoyed before.

Cooperatives should not regard the fact that they were not given legal priority in the Act as a setback to their movement, said Mr. Davis, and he pointed to the "expanding role which is beginning to unfold" for them.

He reviewed the history of the movement in the United States, showing that cooperatives organized for the control of marketing, but not for the control of production, have no more power over prices in the long run, than farmers not organized at all.

"Cooperative associations can do certain desirable things well," said Mr. Davis. "They can assemble and grade products in commercially significant quantities, so that central market premiums for quality goods may be reflected in prices to the individual producers who are members. They can eliminate competitive wastes, organize large-scale distribution, find new markets, obviate local gluts and shortages, and take over from middlemen certain functions for which middlemen commonly demand big pay."

"These are all worthy and important objects. But with production rolling in upon the market in an unregulated flood-tide, the benefit seldom remains with the farmer. The

general principle that governs all technical progress applies here. Whatever reduces the cost of producing or distributing an article, benefits the consumer rather than the producer if production is not regulated. The achievements of cooperative marketing like the achievements of science tend to become diffused throughout the community. They slip out of the farmer's hands completely when demands falls with no corresponding drop in output."

The Agricultural Act potentially emancipates the cooperatives from the "burden of the uncontrollable surplus, and likewise from the embarrassment of the unorganized outsider who rushes into every market stiffened momentarily by cooperative action," Mr. Davis declared.

"How much more simple, logical and attainable will be the object of the cooperative movement when the Agricultural Adjustment Act gets into full operation," he continued. "It will then be possible, for the first time, for cooperatives to promise only what they can perform. They will no longer be dragged inescapably into operations which economic science condemns in advance. With production adjusted, they will not have to store surpluses, in order to prevent loss on the required supply of farm products. They will not be driven to act as if the control of a small part of a given crop could regulate the price of the whole. They will not have to bother any longer about the unorganized outsider. Whether he comes in or stays out will affect only the scale and not the kind of the cooperative's activities."

"Meanwhile proved efficiency in raising the quality of farm products, in reducing the cost of assembling and distributing them, and in shortening the path from the farm to the consuming market will be title enough to the allegiance and support of the farmers. In short, if for the present the Agricultural Adjustment Act circumscribes the activities of the cooperative movement, it does so usefully and favorably. By taking over jobs that the cooperatives can not yet perform, by relieving them at this critical time of responsibility for surpluses and prices, it allows the

cooperatives to specialize on jobs that they are already well fitted to do."

Mr. Davis pointed out that the cooperatives, freed from the impossible task of production control, can undertake the task of price control through orderly marketing. Furthermore, they can be influential in negotiating marketing agreements for non-basic farm commodities, a field which he characterized as "almost illimitable." In the pending milk agreements, the cooperative associations become an ally of the Administration in production control, he said, adding that it will be the same with fruits and vegetables.

"We are all pioneering just now in newly discovered territory," said Mr. Davis. "Nothing is sufficient unto itself; neither the Agricultural Adjustment Act nor the farmers' cooperative movement; neither the agricultural industry nor the agricultural market; neither the individual nor the Nation. It is the synthesis we want, the harmony of correctly related parts."

"This is a time of reorientation for the cooperative movement, just as it is for every element in our economic life. It is a time for redefining objectives, and for suiting means to ends with increased precision. Regret that things are not going forward in precisely the path we had marked out is idle. The important thing is to see the true path, and take it. For the cooperative movement a wide path opens out. Essentially, it is the path which economic science marked for it long ago, but from which events led it astray. The sign post reads, 'Price control through production control. Otherwise no thoroughfare.'"

## MULCHING SLOWS UP DECOMPOSITION OF CITRUS COVER CROP

(Continued from page 8)

leaching of minerals from the tanks without trees than from the others.

A chemical analysis of the leaves, stems, and roots of the trees showed that the cover crop treatments slightly increased the nitrogen content. The lime content on the Crotalaria

(Continued on page 25)

# The Citrus Industry

with which is merged The Citrus Leaf

Exclusive publication of the Citrus Growers and Shippers

Publication office, 550 North Broadway, Bartow, Florida. Executive and editorial offices: 312-313 Wallace S. Building, Tampa, Florida. Address all communications intended for the editor to the Tampa office.

Telephone \_\_\_\_\_ 4819

Published Monthly by  
ASSOCIATED PUBLICATIONS CORPORATION

S. L. FRISBIE	President
S. LLOYD FRISBIE	Secretary-Treasurer
FRANK KAY ANDERSON	Director
A. G. MANN	Production Manager

Subscription, \$1.00 per year in advance

NEW YORK OFFICE  
118 East 28th Street  
Edwin F. Ripley, Manager

CHICAGO REPRESENTATIVE:  
Joe Esler, 5434 Glenwood Avenue  
Telephone—Long Beach 3429

## A NATIONAL CONTROL FOR CITRUS

A national set-up for control of the citrus industry insofar as standardization of grade and pack, pro-rating of shipments and dissemination of market information was recently adopted by the citrus interests of Florida, California, Texas, Arizona and Porto Rico. Provisions of the national agreement and also of the set-up for the state of Florida are published elsewhere in this issue.

Very naturally, The Citrus Industry is much pleased at the outcome of the conference in Washington. From its first issue down to the present time, The Citrus Industry has advocated closer affiliation of the citrus interests of the various citrus producing sections, and it is glad to see this initial step taken toward the consummation of a nation-wide citrus set-up.

Efforts of the growers of the individual states producing citrus to solve their marketing problems have proven abortive. No matter how nearly complete may have been the control of the crop, no state plan has been successful; nor has any state heretofore been able to secure the co-operation of other states on any line of action desired. This the national line-up is designed to cover, with Uncle Sam acting in the role of policeman to see that the provisions of the agreement are carried out.

It is probable that in actual practice certain modifications may be found necessary; it is altogether possible that the new plan may fall short of the high expectations of some over-enthusiastic supporters; but at least a start has been made in the right direction and with the federal agencies acting as sponsor much may be expected in the way of solving many problems which heretofore have defied solution.

At the meeting in Washington three plans for a national set-up were submitted—one by California, one by Texas and one by Florida. In its essential features the Florida plan was adopted by unanimous vote of the representatives of the five producing areas.

The national stabilization committee for oranges will be composed of four members each from Florida and California, and one each from Texas, Arizona and Porto Rico. The grapefruit

stabilization committee will consist of four members from Florida, three from Texas and one each from California, Arizona and Porto Rico. The Florida control committee will consist of nine members, three from the Florida Citrus Growers Clearing House Association, three from the Florida Citrus Exchange and three from among the shippers not affiliated with either of these organizations. All of these committees will be directly responsible to the Secretary of Agriculture who will have authority to enforce any of the provisions of the agreement.

Heretofore, pro-rating agreements, whether made by the shippers of one producing area or by a combination of shippers from separate producing areas, have failed to function, owing to the failure of all shippers to participate. Under the new set-up, all shippers will be forced to participate; if not willingly, then under compulsion. This government authority is the one thing which has been needed to bring about control of distribution.

While the pro-rating clause will have the most direct and the most beneficial effect upon the industry, it is only one of the benefits to be derived. Standardization of grade and pack, an objective toward which citrus factors have striven for years, may now be made effectively operative under the national set-up, and the provisions for distribution of marketing information secured daily by the control committees and disseminated to all licensed operators under the act, should prove a really worthwhile factor to the trade.

As adopted, the plan would seem to offer an opportunity for united action which has never before existed in the industry, and with the power of the government behind its enforcement provisions it should result in a stabilization of markets which has always been an unrealized dream of both growers and shippers. Properly executed, the new national set-up should go far toward placing the citrus industry on a profitable basis—and keeping it there.

Texas grapefruit growers estimate a loss of one million dollars from the effects of the tropical storm which visited a small section of the Lower Rio Grande Valley early in the month.

Present indications are that Florida's citrus fruit now in the making will be of much better quality and more desirable sizes than last season's very unsatisfactory crop.

The wise grower is always on the alert for new and better grove practices—but he sticks to proven practices until the new ones also have been proven.

A citrus grove is much like any other business—in order to be made profitable, it must have the personal attention of the owner.

Even a national set-up will not make money for the grower who fails to produce fruit of good quality and appearance.

Fancy fruit and a crop of destructive insects cannot be produced in the same grove.



# IMPRESSIONS

By Frank Kay Anderson

Somehow we had gotten the notion that the last pair of perfect feet had passed out along with Du Maurier's Trilby, but we were wrong. Walking into Bill Goding's living room at Apopka they greeted us all propped up on a stool, peeking around the corner of young Bill Edwards' shoulder. Walking over closer and tracing said pedal extremities via connecting legs and torso we found, to a somewhat reasonable amazement, that they belonged to Bill Goding. Now we had become so accustomed to Bill Goding's feet encased in boots that somehow we had gotten the idea he slept in his boots. Yet here, all polished up and resplendent, were two practically perfect feet, and beauties at that. We wonder if it ever occurred to the Goding person what a hit he might make by going about with bare feet and a burlap sack over his head?

Bandaged ankles, however, indicated that this was not just a private showing of feet. It developed that the manager of Richard Whitney's Florida Insecticide Co. and Florida Humus Company had recently taken an automobile trip to St. Petersburg with Bob Carleton, manager of the Plymouth Citrus Growers Assn. and T. L. Rogers the foreman of that house. Coming into St. Pete in the rain and discussing Wiley Post's air voyage around the world, Bob Carleton got an idea. Now when Bob gets an idea he is apt to put in into prompt execution. So it was that, instantaneously to speak, Bob twisted the controls and tried operating his automobile upside down. Rogers being accustomed to traveling with his boss hung on and he and Bob Carleton remained in the car, but Bill Goding didn't. He left the car somewhat impetuously, and got entirely out of the way with everything but his feet. The running board traveled merrily along his ankles, with the result that they were somewhat frayed and frazzled out along the selvage edge. Later x-rays showed a broken bone in one ankle. That Law of Compensation works queerly, just think if Bob Carleton hadn't been troubled with an idea Bill Goding might never

have become famed for his beautiful feet.

Arriving from New York right on the heels of this incident, in a manner of speaking, Richard Whitney, whether encouraged by the balance-sheet showing or this accident to his manager, O. K.'d the enlargement of the Florida Insecticide Co.'s plant at Apopka in a way which will practically double its capacity. To the former 8,000 square feet of floor space of the manufacturing plant will be added at once 6,000 square feet more. They need it to keep up with orders. That's growth for you right through this difficult period.

Another pioneer citrus grower passed recently, when Frederick H. Rand died in Orlando at the age of 87. Coming to Longwood in the early days of the modern citrus industry he developed one of the fine groves in that vicinity later to survive the Big Freeze of '95. He was connected with the building and operation of the South Florida railroad, when that line pioneered the way southward from Sanford through Orlando to Tampa and Fort Myers, and was for a long period of years head of the First National Bank of Sanford. He retired from that connection and moved to Orlando only in 1916.

The old Rand grove near Longwood now belongs to Fred Schofield, the nationally known evangelistic singer, who lives there when not traveling about over the country. Fred Schofield has not only kept it up but has added budded acreage to it, and today it rates as one of the fine groves in that section of the state. It is noted among the fruit men for the high quality of the fruit it produces, usually commanding prices considerably above the average. That is just as true of the fruit from those old seedling trees as it is of the newer plantings. Fred Schofield, by the way, got his start calling hogs on the farm out near Fort Scott, Kansas; and, it is said, did something like a million dollars worth of singing out in the hayfields before he found people would pay money to listen to him

sing.

The general confusion in citrus circles prior to the Washington meeting on July 20 was well expressed by a correspondent of ours (name will not be furnished upon application), who on July 14 summed up the situation, as he had gotten it from sundry news sources, as follows: "Trade organizations seem to be less favorably regarded under the agricultural adjustment act than in industrial recovery act circles. Orlando paper announces regulations, drawn by Dr. Tolley, will be ready for the conference on July 20. Lakeland source releases advices that a federal coordinator will be given charge of citrus industry in all producing states. Tampa paper proclaims Exchange officials will take no steps toward designation of such gentleman until after Washington conference. Assistant Secretary of Agriculture goes on record that advertising is an economic excrescence. Administrators of the agricultural adjustment act reported considering use of paid space in county papers through wheat belt giving the crop acreage on each individual farm, cost thereof to be part of the administration expenses. Nature is wonderful, and I wish I had a drink!"

Speaking of published things, of all the charmingly inaccurate articles ever we have seen in print the Florida crop report, as released by the office of H. A. Marks, U. S. D. A. in Orlando on July 13, took the cakes with the syrup thrown in. Evidently the papers which got it first not only didn't proofread it but didn't read it, for the version they put into print sadly failed to coincide with the mimeographed copy. Not only so, but, acting as Associated Press correspondent, these same sources put out over the wires to other papers of the state the same garbled version they printed. We have the notion the Associated Press should provide some means for the accurate transmission of these reports and similar things, or else allow the papers to wait until they receive them direct by mail.

A student of ancient literature in

Fort Pierce rises to protest at the statement we made last month that "Boomerang was a Florida citrus grower who in the book was journeying with Bill Nye through the Mormon country." This critic says, "I have read the book. Why Boomerang was a burro, a jackass." Well?

Word from W. R. Briggs, the former county agent for Manatee and for Brevard counties, [reveals that he is up in Columbia county, with headquarters at Lake City, engaged in work in connection with cotton. Now we know that the reduction in funds available to the state experimental forces have necessitated various shifts and changes, but we certainly dislike seeing a plumb good citrus production man like the Briggs person spending his time in cotton fields.

Friend Wife sums up her opinion of what is to Floridians the most important part of the Century of Progress Exposition in these words, "Really the Florida exhibit is just lovely." Now we guess that settles that without going into details. Though among the details she particularly praised the mural paintings depicting Florida historical incidents.

But that darned citrus diorama came in for this comment: "It was funny, but when we first arrived at the Florida exhibit there were several ladies there from South Florida who were audibly criticizing that citrus diorama. We all discussed it together. A young man in attendance on the exhibit, who comes from Bronson, assured us that it looked just as an orange grove looks. Then we all poked fun at him as to what the groves in his section must look like if he thought this diorama looked like an orange grove. Finally, and reluctantly, he admitted they 'had to get by with it'."

For a very brief pen picture of the fair, how is this? "The buildings seem to lack the bulk I expected yet are quite large. The most surprising thing is the brilliant coloring on all of them. The prevailing color is a peculiarly brilliant blue which is nearly blinding. There are also almost all the colors of the spectrum in their most brilliant forms. They do not clash, however, as everything blends to create an effect which is startling, but beautiful in a most peculiar fashion." That's from the sixteen-year-old son. It is evident it is going to be necessary to watch that young fellow carefully or he'll turn out to

be an Impressionist.

Later, after leaving Chicago and writing from out beyond the Missouri River, Friend Wife falls into the same error which ensnares many Floridians when during the summer months they journey into far places. She wrote a regular scorcher concerning the looks of the Florida citrus fruit she encountered there, forgetting that it was the latter part of July when she saw it. Particularly did she deride the appearance of some Florida grapefruit she met in person about fifty miles west of Omaha. Next morning after receiving that letter we took the occasion to examine carefully our own breakfast grapefruit; and certainly it was no thing of beauty.

Which reminds us that Senator Fletcher recently sent us a letter from a Florida grove owner, a northern resident, who was all up in arms because in Montreal he could find no Florida oranges while there were plenty of California Valencias there. He gave the Canadian tariff rates the devil. He is right; that tariff is hurtful to us; but we doubt if in the early 20s, at the peak of our trade with Canada and before these imposts curbed shipments into the Dominion, he would have found any Florida oranges in Montreal in July. In fact, we are sure he would not.

Right as these lines are written there is a good bit of ado concerning governmental regulations, both NRA and agricultural, and many things are too much in the formative stage to warrant comment in print. What today looks to be one way tomorrow may shape up to be another. However, if the element of excitement can be minimized, there is promise that everything is going to turn out all right, and quite likely a lot better than that.

One thing thus far has developed definitely out of the agricultural negotiations up to the time of this writing, that is we have three groups of citrus shippers who for lack of better designation are being named as Exchange, Clearing House and Independent. What used generally to be termed the independent shippers have distinctly divided into the Clearing House group and a non-Clearing House group, the latter generally being named by the newspapers as the independents. There is yet a fourth classification, that cannot be termed a group, consisting of smaller shippers who have not yet affiliat-

ed with either the Clearing House or the independents. Maybe they will yet be forced to get together. If they form their own group, we guess they'll be the mugwumps.

Then where this mysteriously mentioned projected new cooperative citrus shipping organization will fit in is purely a matter of conjecture. It hasn't happened yet. That is to the time of this writing, but further your deponent sayeth not.

As we write this we have before us a grapefruit wrapper which our wife sent us in connection with her complaint of the very poor quality of the fruit she found. Meditating upon it, there is room for a sermon. It is what is known as a stock wrapper. The sort which is sold ready printed to any packing house which will purchase. It does not carry the shipper's name. In the outside circle are the words, "Selected, Carefully Packed." Inside is the legend, "Florida Citrus Fruit." The word "Florida" is the big thing in heavy type. Now, we will not go to the length of a sermon, but we will again call attention to the fact that a geographical designation like "Florida" cannot be protected or restricted by law; that any person may use it at any time on fruit of any grade, or lack of grade, provided only that the fruit originate in Florida. Then we would like to ask just one question, which is: Does it not follow that it is precisely fruit of this nondescript character which profits most from any commodity advertising campaign featuring Florida Fruit, to the direct disadvantage of Florida-grown fruit of better character?

Our personal nomination for the most original and attractive handwriting of any business man in the state is that of Frederick H. MacFarland of Cocoa. It is as wholly different as it is truly artistic through the severity of its plainness. Unfortunately the gentleman's signature is more or less conventionalized, so it requires sight of a few penned lines from him to realize that in handwriting here is one who doesn't follow the herd.

This has been a quiet summer in Florida, and for ourself it has been exceedingly quiet. With all our family away we have had peace and quiet all around these diggings, large gobs of each. Just because of its differentness it brought to mind last night the summer bachelorhood of a well known Sarasota county grower a doz-

(Continued on page 18)



The greatest volume of sales  
in any week of  
this company's  
history came  
during the week  
ending July 22,  
1933.

Florida Insecticide Co.

Apopka

Florida



*Growing Larger Through Better Service*

## For Young Citrus Trees--

There is nothing of so great value as Florida Peat Humus placed in the planting holes. In good soil or poor its results are splendid.

Composted with goat manure (200 to 400 pounds of goat manure to the ton) it is the greatest bacteria carrier known to agriculture. Wiley Laboratory tests show bacteria content 1-3 better than the best manures.



Florida Humus  
Company

Zellwood

Florida

### A Grower Says:

"This last winter I put in eighty resets in my grove. Following advice I put into each planting hole fifty pounds of Florida Peat Humus which had been thoroughly composted with four hundred pounds of goat manure to each ton of humus.

"You should see those trees now. Already they are so far ahead of other young trees set at the same time that there is no comparison.

"That assures thrifty and strong trees, and I feel I am saving valuable time.

"This treatment seems to enable the trees to obtain the fullest value from the fertilizer that is applied to them, and the Florida Peat Humus thus used is there to stay. It is not just a temporary thing."

# Text Of Tentative National Agreement

(By Agreement Among Representatives From Each Citrus Area Present at Washington Conference, It Was Decided That This National Agreement be Included in and Made a Part of Each State Agreement).

It is agreed that the Control Committee shall join with other State and Insular Control Committees in the selection of a National Citrus Stabilization Committee for Oranges, the representation thereon to be as follows: Four representatives each from California and Florida, and one each from Arizona, Texas and Puerto Rico, who shall serve in cooperation with a National Co-Ordinator to be appointed by the Secretary of Agriculture.

It is further agreed that the Control Committee shall join with other State and Insular Control Committees in the selection of a National Citrus Stabilization Committee for Grapefruit, the representation thereon to be as follows: Four representatives from Florida, three from Texas, and one each from Arizona, California and Puerto Rico, who shall serve in cooperation with said National Co-Ordinator to be appointed as aforesaid by the Secretary of Agriculture.

All members of both National Stabilization Committees shall serve without pay but shall receive their actual expenses. The said National Co-Ordinator shall be paid such compensation as shall act only if and when their respective services are required as hereinafter set forth and shall exercise only such powers as are granted by this agreement as follows.

The Citrus Control Committee of any state or of Puerto Rico shall be, and it is hereby authorized, on behalf of the shippers and growers represented by it, to file a petition with the Secretary asking that he direct the appropriate National Stabilization Committee (either the Orange committee or the Grapefruit committee) to consider and decide either of the following questions:

(a) Whether the Control Committee and Shippers of any state or Puerto Rico have operated, with reference to the particular commodity of which such committee shall have jurisdiction, contrary to the terms of the agreement with the Secretary under the Agricultural Adjustment

Act.

(b) Whether the market conditions with reference to the commodity of which said National Committee shall have jurisdiction are such as to require national prorating and allotment of supplies of said commodity in furtherance of the purposes of the Act and the terms of said agreement.

The Secretary may thereupon direct an investigation and require a report and finding by said appropriate National Stabilization Committee, upon the particular question or questions so submitted. Said appropriate National Stabilization Committee may for good and sufficient reasons recommend to the Secretary the revocation of the license or licenses of all shippers violating the terms of the agreement or Act or failing to comply with the regulations and orders of the State Control Committee or the National Stabilization Committee.

Each of said National Stabilization Committees shall also have the power to prorate shipments of the commodity under its jurisdiction from the several States and Puerto Rico in accordance with its findings, which proration orders shall be binding upon all State Control Committees affected thereby, with provision, however, that no order to prorate orange shipments may be made except upon affirmative vote of not less than seven members of the National Stabilization Committee for Oranges, and except likewise that no prorating order for grapefruit shipments may be made except upon the affirmative vote of not less than six members of the National Stabilization Committee for Grapefruit. Orders of either of said National Stabilization Committees upon questions submitted by the Secretary shall become effective when notice thereof is given to the State Control Committees, but shall be subject to the further orders of the Secretary of Agriculture upon appeal or otherwise.

Specific power is given to each of said National Stabilization Commit-

tees to adopt reasonable rules and regulations for the transaction of its respective business hereunder, including the right to allow members thereof to be present by proxy or to vote on any question by wire or otherwise.

All expenses of the operations of National Stabilization Committees and the National Co-Ordinator above mentioned for any year shall be paid by the Control Committees of the several states and Puerto Rico out of the funds realized by said Control Committees, from the shippers in their respective jurisdictions, from the assessments made on license fees charged by their respective methods

## Do You Buy—

**Iron Sulphate**  
(Copperas)

**Copper Sulphate**  
(Bluestone)

**Sulphur**

**Zinc Sulphate**

**Insect Powder**

**Fish Oil Soap**

*We Can Supply You*

**Chase & Co.**  
**Sanford, Florida**

of state operation. Such national expenses for any year shall be apportioned among the several States and Puerto Rico in accordance with the respective tonnage of oranges and grapefruit handled in interstate or foreign commerce by each of said respective areas in each marketing year.

## Soil Bacteriology

(Concluded from last issue)

This last condition mentioned here is known as Dentrification. The optimum factor for this undesirable condition is the result of too tightly packed or a water logged soil containing a large supply of fresh organic matter. From this point of view it is unwise to add nitrates to the soil when green cover crops are turned under. Decayed manures, either barnyard or green do not favor Dentrification.

In growing of plants and vegetables on the heavier soils it is best to delay planting for about 2 weeks after turning in the green manure. This is understood when we appreciate the first product of the decay or disintegration of the organic matter is acid and these acids must unite chemically with bases to form compounds that plants can use.

Here in the citrus area of Florida we should incorporate into our grove practice the policy of using heavy applications of easily rotted organic matters in the early spring. At this season the supply of green matter in the soil is at the minimum for the year and the demand of the soil bacteria the greatest. Tree growth is starting, nitrates for this growth is in demand by the trees. Due to temperature and moisture conditions over the winter period, nitrification has been at the minimum and the season is often started with a very limited amount of nitrates usually as nitrate of soda, ammonia being considered too slow. This practice is undoubtedly a correct one. However, any ammonia left in the soil over the winter dormant period must be converted into nitrates before the trees get hungry or they will start feeding on this ammonia with a consequent die-back and diseased condition resulting. This necessarily calls for a generous supply of easily rotted or already rotted organic matter.

Remember that in the spring the trees are entering their period of

## THE CITRUS INDUSTRY

most active growth and the soil is just leaving its period of least active condition. The cover crop left from last fall is largely that part most resistant to decay and if we expect our friends, the microbes, to come to our assistance we must meet the conditions they specify. Remember, too, no matter how many microbes there are in the soil, unless they are active they are of no value whatever.

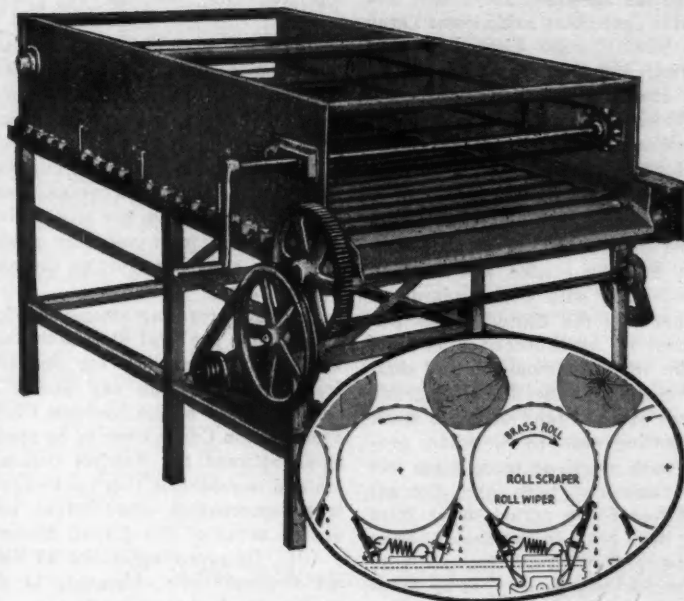
Fifteen

Detailed Soil Analysis and Interpretations, Estimation of Plant Food Requirements and Soil Toxins.

\$2.50

SOIL LABORATORY

Frostproof, Fla.



## A New Packing House Unit

### The Water Eliminator

This machine takes the fruit from the Washer and eliminates 90% of the moisture. How this is done is shown in the detail sketch. Transverse brass rolls pick up the water by direct contact with the fruit. A hard rubber scraper takes off most of the water from the brass roll and also keeps its surface clean. A "squeegee" a little further on wipes the roll dry before it again comes in contact with the wet fruit.

This equipment is a very practical and economical adjunct to our former type drying unit. It occupies very little floor space, has large capacity, operates with a small motor and costs very little. Its efficiency is entirely independent of weather conditions.

Those who wish to increase the capacity of their plant can do this by installing a Water Eliminator ahead of the regular dryer. By first taking most of the water off the fruit with the Water Eliminator the dryer will have much less to do and by speeding up the fruit travel you will thereby increase the capacity of your plant.

Our picture shows a Water Eliminator for an eight-car plant—it occupies only 4½x9 feet of floor space.

## FLORIDA CITRUS MACHINERY COMPANY

B. C. Skinner, Pres.

Dunedin, Florida



# Text of Tentative Florida Agreement Under Agricultural Adjustment Act

That the Secretary of Agriculture, before the beginning of the 1933-34 marketing season, shall appoint a Control Committee of nine persons to represent him in the administration of his functions under said Act and this agreement as follows: Three from the Florida Citrus Growers Clearing House Association; three from the Florida Citrus Exchange, and three from among the shippers not affiliated with either the Clearing House or the Exchange, all nine to be growers as well as shippers.

That all citrus fruits handled by Shipper in interstate or foreign commerce shall be graded and certified in conformity with the standards as now fixed by the United States Department of Agriculture, or as same may be hereafter modified, and shall show on the container the U. S. grade thereof, or the brand or trade mark representing such U. S. grade, provided such brand or trade mark has been registered with the Control Committee for a period of at least thirty days prior to the use of same; it being further agreed that any loose fruit which may be shipped by Shipper, not contained in any container, shall be identified as to grade by stamping, marking or branding each individual fruit. For the purpose of carrying out this term of the agreement, Shipper does hereby agree that it will utilize the standard U. S. inspection service and will pay to the United States Department of Agriculture an average cost price for such service as the same is rendered by its inspectors throughout the life of this agreement.

That the Secretary will through the regular organization of the United States Department of Agriculture furnish and supply to Shipper the standard U. S. inspection service on the average cost price and standard conditions.

That Shipper shall be governed in the sale, shipping and distribution of the citrus fruit shipped or marketed by Shipper by the rules, regulations or instructions issued by the Control Committee or by the Secretary for the purpose of regulating the marketing and distribution of citrus fruit. Said Control Committee shall be authorized to limit and con-

trol the amount of citrus fruit, or any variety or varieties of same, which may be shipped from Florida during any period of time, by invoking any one, two, three, or all of the following methods of control, namely;

(a) By prohibiting or limiting from time to time, in accordance with the market situation, the sale or shipment of the least valuable grades and sizes of citrus fruit;

(b) By prohibiting or limiting from time to time, in accordance with the market situation, the sale or shipment of the least valuable grades and sizes of citrus fruit to the auction markets;

(c) By prorating among all Florida shippers the total Florida tonnage which may be allowed for shipment from Florida during any period of time by either of the National Citrus Stabilization Committees or by agreement between the Control Committee and appropriate Control Committees representing other citrus producing areas of the United States.

(d) By prorating among all Florida shippers their shipments to the auction markets;

(e) By prorating among all Florida shippers the total tonnage of tangerines allowed to be shipped during any period.

It is specifically understood and agreed by shipper that in the application of any or all of the systems of control of volume hereinabove authorized and provided for, it is the purpose and intent of the Secretary that the interests of the individual growers shall be recognized and protected, and to this end the obligation is hereby imposed upon Shipper to equitably distribute, insofar as he may be able, the resulting benefits and burdens among the various producers and owners of the citrus fruit being handled by said Shipper, by apportioning the shipments among them insofar as may be practicable.

That for the purpose of bringing about as intelligent a distribution and marketing of citrus as possible the Shipper will report daily to the Control Committee, in such manner as may be directed by said Control Committee, its shipments of citrus fruits for that day, segregated as to varie-

ty and grade; together with the number of cars sold and prices realized; the number of cars unsold and whether moving East, West or South; the number of cars rolling to auction and the destinations thereof; the number of cars disposed of by private consignment or joint account sales, or otherwise marketed in any way.

That the Shipper will pay to the Control Committee such uniform charge as may be assessed against it and other shippers executing agreements identical with this agreement, by the Control Committee and approved by the Secretary, per standard Florida packed box or its equivalent, for all citrus fruit handled by the Shipper in interstate or foreign commerce during the life of this agreement, such charge to be paid monthly on or before the tenth day of each month for all amounts accruing during the month preceding. Such charge shall be fixed with the sole intent of defraying the actual cost of those services of the Control Committee to be performed hereunder, and in the event an excess amount shall be derived from such charge in any marketing year, such excess shall, at the end of such year, be rebated proportionately to the shippers by whom the charge has been paid.

That the Shipper will submit to the Control Committee its books, records and accounts at any time for such examination, inspection and audit as may be required by the Secretary or the Control Committee.

That the Control Committee shall have power to adopt such rules and regulations and enforce such orders

## FOR SALE

Lists of Florida Citrus Growers compiled from recent survey of groves, arranged by counties. Name, address, acreage and legal description.  
Also list wealthy residents of Florida.

**W. L. Lamar**  
P. O. Box 333  
JACKSONVILLE, FLA.



as may be necessary to effectuate the purposes of this agreement and of the Agricultural Adjustment Act.

That the Secretary will, in order to make the terms and conditions of this agreement applicable to the Florida citrus industry generally, enforce a license system under Subsection 3 of Section 8 of such AGRICULTURAL ADJUSTMENT ACT, the terms and conditions of said licenses, required by all the handlers of citrus fruit in order to qualify them for operating in interstate or foreign business, to be the same as the terms and conditions embraced in this agreement, individual licenses being required for each packing house.

That the Secretary will require the Control Committee to have all of the information furnished to it by Shipper and other shippers, under paragraph 6 hereof, compiled by one or more reputable persons designated for the purpose, without disclosing or revealing the name of any shipper furnishing such information, save and except as may become necessary by reason of investigation to determine whether such shipper has complied with his agreement and the rules or instructions issued by the Control Committee hereunder. Such

information so compiled in composite form by the Control Committee shall be issued that same day to Shipper, as well as to all other licensed operators who may request same, for the purpose of bringing about as nearly as possible a uniform price attitude and otherwise assisting all shippers in intelligently handling their marketing problems. Furthermore, the Control Committee shall secure daily by wire from all auction markets such information as will be further beneficial to the citrus operators of Florida, such information being compiled and issued in bulletin form and made available by wire or otherwise to all licensed operators requesting same. All of the compiled information furnished under this paragraph shall be furnished at the expense of the Control Committee except that any shipper desiring to receive information hereunder by wire must pay the expense of such wire service.

The annual Farmers' Week at the College of Agriculture will be suspended this year as an economy move.

Wrapping picnic or lunch-box sandwiches separately in waxed paper keeps them fresh.

## FRESH SUPPLY WHITEFLY FUNGUS NOW AVAILABLE

Gainesville, Fla. — A fresh supply of Red Aschersonia, so effective in the control of citrus whiteflies, is now available at the State Plant Board here. Growers are urged to apply this friendly fungus early so that it will spread and have a longer time to kill the whitefly, says, Dr. E. W. Berger, entomologist. Fresh cultures are also better than older ones. Now is the time when weather conditions, warmth and moisture, are best for applying the fungus, Dr. Berger says.

Cultures can be obtained from the Plant Board for one dollar each, the cost of production and distribution. A culture consists of that grown in a pint wide mouth bottle and is sufficient for treating one acre of whitefly infested trees.

The Florida Agricultural Experiment Station has issued a total of 263 bulletins in the 45 years of its existence. Its bulletins are distributed free to residents of Florida.

In writing advertisers please mention The Citrus Industry.

## The Best Market In Florida

Is made up of the citrus growers of this state.

The logical medium through which to appeal to this group is

### The Citrus Industry

because it is addressed solely to this group of readers.

A lot of advertisers have already learned this.

—A trial will convince you of the wisdom of this course.

## COLOR or BLANCH

MATURED FRUIT AND VEGETABLES WITH

## ETHYLENE



Every grower and shipper should have this FREE book which shows how Ethylene

1. INCREASES PROFITS
2. REDUCES LOSS
3. SAVES TIME
4. SAVES MONEY
5. IS NEITHER INJURIOUS NOR DANGEROUS
6. IS EASY TO USE

Buy from the largest supplier of Ethylene to the citrus industry

## CARBIDE AND CARBON CHEMICALS CORPORATION

30 East 42nd St., New York City

1310 Santee St., Los Angeles, Calif.

114 Sansome St., San Francisco, Calif.

Warehouses in Los Angeles, Tampa, Jacksonville, and other principal cities

Units of Union Carbide **UCC** and Carbon Corporation

## IMPRESSIONS

(Continued from page 12)

en years or more ago. A couple of days after his family departed he found out that man naturally is gregarious. So forthwith he collected a certain number of similarly gregarious spirits from various places over the peninsula whose families likewise were missing, and moved them into his house. Shortly they fired the cook, whose dark-skinned husband undertook to do the cooking, and forthwith they set up an Eveless Eden. It was very hot weather, and these being very busy men clothing was minimized. Maybe this wasn't the first, but it was one of the very successful nudist colonies in Florida. Then they took up the rugs and otherwise made arrangements which greatly simplified the housekeeping problem. Among the innovations were artistic signs upon pasteboard affixed to the door lintels giving directions for travel about the house, for the benefit of those who at any time might be a bit hazy as to what portion of the house they just then happened to be in. In certain places these were augmented by long lines and arrows artistically drawn upon the hardwood floors. It was a lovely arrangement, and it was just getting nicely systematized when there was a slip up. Due to the pressure of their activities they forgot for a two day period to send to town for the mail. So it was that wholly unheralded, quite unexpectedly so to speak, the host's wife walked in.

So great is our natural charity that in writing the foregoing we have omitted the names of eight gentlemen more or less well known in citrus circles. You seven birds now will have to come across.

We—well we have nothing to conceal. You see a business matter had necessitated our leaving in the forenoon preceding the lady's arrival.

We know we have a weakness for onions; that we like them in many ways and as ingredients in many dishes; but we didn't know until recently how great is our onion-obsession. A well known business man from the lower part of the state had lingered a couple of days here with us to cheer our bachelorhood, and to fatten up a little on our cooking. From the kitchen on the second day we inquired if he wouldn't like a cup of coffee. From somewhere in the depths of the house came the ans-

## Railroads To Continue Rate Reduction On Citrus

Florida railroads are to continue the truck competitive rates which expired on July 31, 1933, until June 1, 1934, according to announcement coming out of Tallahassee from the state railroad commission. The reduction amounts to 12 cents per hundred pounds from the regular rate.

This rate applies to carload lots of 444 boxes of standard weight of 85 pounds per box, with a minimum car weight of 39,960 pounds. Out of state shipments of citrus last season by all methods, rail, truck and boat, are placed at approximately 22,000,000 boxes according to the figures of the railroad commission.

The voluntary reduction of 12 cents a hundred pounds on carload lots of 444 boxes was put into effect by the railroads last year. It expired July 31, but the recent announcement was that it had been re-instated and extended until June 1, next year.

Eugene S. Matthews, chairman, in making the announcement for the commission, made public the following letter from R. J. Doss, assistant freight traffic manager of the Atlantic Coast Line Railroad:

"The truck competitive rates on citrus fruit to southern points, which were published to expire July 31, 1933, have been extended for another year. These rates represent reductions in the normal rates of 35 per cent to nearby points, like Atlanta, Macon, etc., 25 per cent to points like Birmingham, Nashville, Charlotte, etc., and 15 per cent to points like Memphis, Richmond, etc.

"Immediately following receipt of advice that temporary reduction of 12 cents per 100 pounds was to be made in rates from California to eastern markets, the Florida lines made a proposal that temporary reduction in the same amount be made in the normal rates from Florida to all points in the United States. The proposal has been concurred in by the southern lines, which will enable us to publish the reduction of 12 cents per 100 pounds to points to which truck competitive rates on a lower basis are not now in effect. This will effect important markets like Louis-

wering shout:

"Yeah, but if you don't mind, leave out the onion!"

ville, Cincinnati, Evansville, and St. Louis. The lines in south-western territory have concurred in our proposal, but the only lines in other territories which have concurred are the Chicago, Indianapolis and Louisville railway (Monon Route) and the Illinois Central Railroad. The concurrence of the Monon route and the Illinois Central will enable us to publish the reduced rates to Chicago, Indianapolis and other important consuming points reached by these lines.

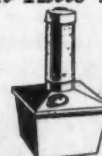
"A determined effort will be made to obtain the concurrence of all lines in other territories in the proposed temporary reduction.

"The reduction of 12 cents per 100 pounds, to the extent it may be made effective, will be published subject to an expiration date of June, 1934, and subject to carload minimum of 39,960 pounds, this minimum being in line with the minimum observed in connection with temporary rates from California."

The state railroad commission has since been advised that the Chicago & Eastern Illinois railway concurred on Aug 2 in the proposal that carriers extend for another year the 12 cents a hundred pound freight rate reductions on carload shipments of Florida citrus.

In writing advertisers please mention The Citrus Industry.

**The Improved  
RIVERSIDE  
Truck-Deciduous-  
& Citrus Heater**  
*It Kills Frost at little Cost*



**MILLIONS**  
*Are in Use....*

Write for  
Descriptive Matter

**RIVERSIDE SHEET METAL WORKS, INC.**  
RIVERSIDE, CALIFORNIA

**D. V. Webb — Sales Agent**  
61 W. Jefferson St., Orlando, Florida  
Stock of Heaters Now  
On Hand at Orlando

## A CORRECTION

A regrettable error occurred in the article on "Citrus Dieback" by Prof. E. L. Lord in last month's issue of The Citrus Industry.

The last paragraph at the bottom of the second column on page seven, should have read as follows:

"I have never seen dieback except on soils which have a definitely low nitrifying power. I have seen it produced in groves where the addition of certain materials has reduced the reaction from pH 7.2 to pH 4.6 in seven years; the trees at the end of this period were showing fruit with 90% splitting and all of the other usual symptoms of dieback. This same splitting has been completely stopped by lime applications while checks plainly showed an increase of dieback. All the cases of Valencia splitting (given as dieback symptoms by Fowler and Fawcett) which I have found have been on soils with a reaction more acid than 5.2."

### INDUSTRIAL RECOVERY ACT WILL BENEFIT FARMERS (Concluded from page 22)

experience has shown that weather, rainfall, insects and blight often mean more than acreage to crop output. Moreover, the record of the attempts to peg prices by reducing farm production is an unbroken line of failures. Mr. Bowker cited a recent study of artificial price-raising measures made by the Harvard Business School covering thirteen commodities with an aggregate value of fifteen billion dollars in 1929, which seems to prove the futility of this effort.

The American farm plant is not, as a matter of fact, over-expanded for normal consumptive demand. Per capita production of food and feed crops has actually slowly but steadily declined over a fifteen-year period; and in a country like the United States a reasonable surplus of food is highly desirable as a factor of safety. The real problem is to restore domestic buying power and to revive export trade by a willingness to buy as well as to sell in world markets, and the National Recovery Act is an important feature in the government's program to solve that problem.

August is the month to start the fall garden. Gardens have been a boon to thousands of farmers and city residents during the last two years.

## J. W. Pace tells: *His Experience*

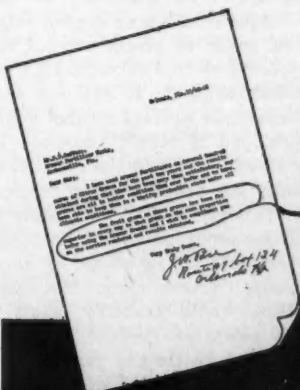
### "The Quality of Your Fertilizer Reflects Superior Crop-producing Power in Every Way"



AGAIN Armour's BIG CROP Fertilizers prove their superior crop-producing value! Read the statement of Mr. J. W. Pace, Orlando. He has used Armour's BIG CROP Fertilizer on several hundred acres of citrus groves for the past ten years and says that results obtained during that period have been more than satisfactory . . . that his groves are in better condition and that he has been able to keep them in a thrifty, productive state under all climatic conditions.

Mr. Pace, like hundreds of other successful Florida growers, has learned from his own experience the crop-producing value of Armour's BIG CROP Fertilizers. Consider his experience in making your own fertilizer selection. And remember -- the better the fertilizer you use, the better quality crops you may expect. Insist upon getting Armour's BIG CROP Fertilizers. They are made of materials especially selected to supply the plant food elements needed for Florida crops and soils.

Use Armour's this year. There is a standard demonstrated brand of Armour's BIG CROP Fertilizer to meet the exacting requirements of your grove. Consult our field representative or write us direct.



The fruit grown on these groves has been far superior in every way to that grown on the same properties before using Armour Brands and I wish to complement you on the service rendered and results received.

## Armour's BIG CROP FERTILIZERS

CITRUS  
GROWING IN  
FLORIDA

If you have not already received a copy of our new "Citrus Booklet" write for a copy today.

**ARMOUR FERTILIZER WORKS**  
JACKSONVILLE - FLORIDA



## A New Market For Citrus Fruits

It Is Estimated That 25% of the Annual Crop Never Leaves the Groves. Why Not Use Some of It This Way — By H. E. TURNER

It may be that those people interested in the citrus industry of Florida have overlooked opportunities provided for them by recent legislation relative to the production of fermented fruit juices. These products may be made for sale provided they do not contain more than 4% alcohol by volume when sold. It appears that grapefruit, oranges and tangerines would lend themselves readily to such use. It is well known that the fresh juice of grapefruit and oranges finds a good market: during the season of 1931-32 the juice of 36,362 field boxes of oranges and 930,171 such boxes of grapefruit were canned. If such amount of juice can be sold fresh, it is very probable that if these juices were fermented to around four per cent alcohol by volume, and carbonated, the sales of such a product would be equally as great.

It should be understood, however, that under the present laws the fermented juice could not be called wine because as the law now stands wine is the product of grapes only. The product of other fruits would have to be labeled according to the fruit from which it is made, such as "fermented orange juice" or "fermented grapefruit juice." At first blush this may seem to be a big disadvantage, but the law more than compensates for this matter when it comes to the payment of special taxes. Under the federal law the wholesaler of four percent beers and wines must pay special taxes aggregating \$125.00, while the wholesaler of fermented fruit juices is required to pay no special tax whatever. The manufacturer is also favored in this respect. The beer manufacturer must pay a federal special tax of \$1000; the maker of fermented fruit juices pays none. The only cost, under the federal law, therefore, would be the internal revenue tax of \$5.00 per barrel of 31 gallons, just as is imposed upon 4% beers and wines.

As for the Florida state law, the manufacturer of fermented fruit juices is required to pay an annual manufacturer's license of \$250.00, and the cities and counties are allowed to levy each a tax equal to not more than 50% of the state tax. There would also be the state tax of 6c per gallon where the beverage

is sold in bulk, or at the rate of  $\frac{1}{4}$ c per pint if marketed in bottles. Should anybody be interested in going into this business, immediately after July first would be a good time to start because the state licenses are then cut in half. This would require an initial tax cost of \$125 to the state, plus whatever taxes may be imposed by the county and city which could not in the aggregate be more than an additional \$125.00.

Beginning at this season would allow some time for experimentation to develop a suitable product when the citrus season is later at its height. Being a new and untried field, there are several problems that the manufacturer should keep in mind and attempt to solve. There is the question of the proper time to obtain the juice—which should be when the sugar content of the fruit is at its highest. This precaution would be necessary because extensive tests of Florida citrus fruit shows that the average sugar content of grapefruit is 6.65, that of oranges 8.43 and that mandarines 8.07. Since these fermentable sugars result in about equal parts alcohol and carbon dioxide, it might be necessary to add sugar, sugar solution or concentrated juice in order to attain around the four percent alcohol allowed. If, from the sugar content, it appears that more than four percent alcohol might be developed it would probably be better to add water to the mash than to dilute the product after fermentation. This precaution would help to retard the development of an acetic acid fermentation later on, or so at least many chemists claim. Since carbonization would probably result in a more palatable product, it might be better to bottle the product just prior to the completion of fermentation, so that the fermentation that would then take place within the bottle would bring the alcohol up to the desired amount and also provide sufficient carbon dioxide for the necessary carbonization. If the fermentation is so conducted as to cause a four percent alcohol and then carbonated water be added, it is probable that the consequent dilution would be so great as to weaken the product and spoil it in its palatability. These are some of the problems to keep in mind: working them out would be

the interesting job.

Before venturing into this field the interested party should familiarize himself with the provisions of federal Regulation No. 10, obtainable free from the Supervisor of Permits, Custom House, New Orleans, Louisiana. Some of the highlights of those regulations are briefly outlined below.

The applicant must state the name of the fruit the juice of which he proposes to use. The juice of only one fruit may be used at a time: a fermented juice made up of juices from oranges, grapefruit, and pineapples, for instance, would not be allowed. The juice of only one fruit may go into any one beverage. The applicant is also required to state what process he proposes to use. In this respect, the regulations allow the use of sugar or sugar solution to be added to the juice or pulp before and during fermentation in such quantity only as may be necessary to raise the alcoholic content to 4% by volume. Or, concentrated juice of the same kind of fruit may be added in lieu of the sugar or sugar solution. After fermentation is complete any of the agents named may be used to render the product palatable, but not to increase the alcoholic content above 4% by volume. Fermented fruit juice may not be fortified or strengthened in alcohol by the addition of alcohol, brandy or any other spirits.

As to the plant itself, this should be of secure and substantial construction so as to adequately protect the untaxed beverage. Each fermenter should be numbered and such number preceded by the letter "F". The letter "S" should be on storage tanks, as well as the capacity, which is also re-

(Continued on Page 24)

### J. F. AHERN

Consulting Engineer

Specializing In

Diesel, Electric and

Hydraulic Engineering

Phone 7-4755 2365 Post St.

Jacksonville, Florida



## Strong Raises Question On Important Plant Quarantine

Lee A. Strong, Chief of the Bureau of Plant Quarantine, U. S. Department of Agriculture, in an address before the American Association of Nurserymen meeting at Chicago, forecast serious consideration of modifications and liberalization of Plant Quarantine 37 which became effective July 1, 1919.

"The motives that have governed the placing and interpretation and enforcement of Quarantine 37 need no defense," said Mr. Strong. "However, 14 years' experience in the administration of these regulations has shown some features which make desirable a re-examination of the underlying principles involved. After a careful and extended study of this whole problem, I find myself seriously questioning the need for, and the justice of the procedure we are following. Inspection methods have been greatly improved and our scientific knowledge of foreign pests and diseases has increased during this period. I feel that greater confidence can now be placed in the efficacy of inspection of plant material at the time of arrival."

Speaking on the "Past, Present and Future of Quarantine 37," Mr. Strong reviewed the enactment of the Plant Quarantine Act in 1912; the changes in the form of the administrative and advisory agencies which have enforced the law; the experiences and the motives which led to the promulgation of Quarantine 37 which is also known as the nursery stock, plant and seed quarantine. He emphasized repeatedly that at no time has the Department of Agriculture regarded this quarantine as for any purpose other than the protection of the country against the introduction of plant diseases and insect pests; never as an economic measure for the stimulation of domestic plant enterprises. Mr. Strong quoted the Federal Horticultural Board as saying that this quarantine had only one purpose, "namely, to reduce to the utmost the risk of introducing dangerous plant pests with plant importations. It is important that this purpose should not be overlooked in any discussion of the quarantine. It is the basis of all the regulations restricting the entry of foreign plants. Quarantine 37 has no tariff object whatever. It was not devised to protect our plant growers from foreign competition."

Under this quarantine provision

was made for the introduction of "new varieties," of "necessary propagating stock," and for importation for "experimental, educational and scientific needs," with the enforcing agency determining what might enter under these classifications. Mr. Strong pointed out certain seeming inconsistencies in the regulations such as restriction on the entry of new roses and admission of rose stocks in quantity, the exclusion of narcissus stocks and the entry of hyacinths, tulips and crocus bulbs in unlimited quantity.

"In issuing permits to nurserymen for the importation of new varieties and necessary propagating stock in limited quantities," said Mr. Strong, "the Department finally has been the judge of what was a new variety. In determining whether or not propagating stock is necessary, the Department is compelled to determine how much stock of a particular plant is available in this country, and then to determine whether or not this is sufficient to supply the needs of the country. If a certain plant is declared available in this country in sufficient quantity to supply the needs of the country, under the theory on which the quarantine has been administered, no further permit is issued. I question the practicability—even the possibility of determining by any available means what will be the amount of nursery stock of a given kind necessary for the propagating use of this country. Moreover, when we get into the field of availability, irrespective of intention, there is bound to be danger of the Department contributing to the building up of monopolies in some particular varieties of plants."

Returning to this line of thought later in the address, Mr. Strong said, "When we attempt to determine that and undertake to ascertain how much stock of a given kind is available in this country, and base issuance of permits accordingly, there is danger of our getting into a field of trade protection which is outside the field of plant quarantine. When we undertake to specify the number of plants of every kind that can be imported into the United States in one year by any person and by all persons, we are in danger of getting further outside our field, except when we set as a limit the number of plants we are able to inspect in order to be sure as we can be that we are not ad-

(Continued on page 24)

## KENTUCKY HOMESPUN AND BURLEY TOBACCO

"Direct From Grower To You"

Old Kentucky Homespun and Burley Tobacco is the cream of the finest crops Kentucky's bountiful soil can produce—ripe, rich leaves, smooth and mellow, with that rare old-fashioned flavor and fragrance that only proper "aging" can produce. We bank on it you have never tasted or smoked a finer flavored, more satisfying tobacco in all your life.

**Special Offer  
FIVE POUNDS  
SMOKING  
TOBACCO**

**\$1**

**Rich, Ripe, Old Fashioned Leaf**

Our Old Kentucky Homespun and Burley is no more like manufactured tobacco than day is like night—guaranteed free from chemicals and all other adulterations that conceal imperfections, delude the sense of taste and undermine the health.

We use the same method our grandfathers used in preparing tobacco for their own use—every trace of harshness leaves it—nothing to "bite" your tongue or parch your taste. Thousands of tobacco lovers the world over swear by its inimitable smoking and chewing qualities.

**REDUCE YOUR TOBACCO BILL** }  $\frac{1}{2}$  We sell direct from the grower, this eliminates the eighteen cents a pound Revenue Tax—all manufacturers' and middlemen's profit, thereby effecting a saving to you of 50% or more. No fancy packages, no decorations, just quality and lots of it.

### MONEY SAVING PRICE

**SMOKING 5 lbs.** Send us One  
**OR for** Dollar Cash  
**CHEWING \$1.00** P. O. or Express Money  
Order (no personal checks) and we will promptly ship you a five pound package.

Five pounds of Old Kentucky Homespun and Burley will make 40 large packages of smoking or 50 twists of chewing.

**35c**

Send 35 cents in silver and we will ship Post Paid — one pound package as a trial offer. A trial will convince you.

We have thousands of requests daily for "Samples"—our margin of profit is so small we cannot comply with these requests.

We do not ship C. O. D. orders, to do so would require a large staff of clerks. Orders must be in English language.

**CHAOTE—DORAN  
Independent  
Tobacco Growers  
Association  
FRANKFORT, KY.**

# Industrial Recovery Act Will Benefit Farmers

Speaker at New Jersey Agricultural Field Day Sees Profit for Farming in Business Stability Measures — Finds Agriculture's Record Good Compared with Industry

American agriculture will benefit as much from the National Industrial Recovery Act, now awaiting the signature of the President, as from much of the legislation designed specifically for the relief of the farmer, in the opinion of Horace Bowker, president of The American Agricultural Chemical Company, speaking at the Field Day held at New Brunswick, N. J., by the New Jersey Agriculture and Experiment Station. The establishment of controlled competition and a generally higher price level "will restore a sounder balance among the prices of agricultural and industrial products," the real crux of the farm problem, Mr. Bowker believes.

"The National Industrial Recovery Act means a break with some of the time-honored precedents of an era of uncurbed individual initiative," Mr. Bowker said. "It seeks to replace controlled competition for the vicious, dog-eat-dog tactics which inevitably characterized the struggle to exist in the presence of shrunken markets and tended to pull us deeper and deeper in the mire.

"It has been my privilege to observe at first hand the point of view of the men who will administer the act and to learn broadly of some of the plans for its administration. While my own viewpoint in respect to economics would probably be characterized as thoroughly orthodox, it is my reasoned judgements that these men will succeed in making this momentous piece of legislation produce the desired results in stabilizing industry for the primary purpose of spreading employment and increasing wages. And that, in reality, is the solution of the common problem of the farmers of the nation, for the restoration of effective demand through a revival of purchasing power is the only way out of depression.

"Objection is made to the National Recovery Act on the ground that no group of men can successfully administer a measure involving such vast administrative complexities. But the task of these men is to inspire, supervise, and direct the activities of industry itself. The real test will be

## FRUITMEN'S CLUB WILL BE REORGANIZED

The Fruitmen's Club which some years ago was prominent in citrus activities in this state is about to be reorganized. For many years this organization included among its membership the names of many of the largest independent citrus factors in Florida, but during the past two years the club has been inactive.

It is understood that the reorganization is the result of the provisions of the national citrus control plan which is now under consideration. The provisions of this plan give the Clearing House and the Exchange representation on the national group and likewise provide for representation among the various independents in the citrus states.

The Fruitmen's Club it is understood will procure this representation for the various independent shippers who are not members of either the Clearing House or the Exchange.

Five directors have been chosen to effect the reorganization. These directors are: L. C. Edwards, Tampa; L. Gentile, Orlando; B. Kilgore, Clearwater; A. E. Fowler, Lakeland; and J. J. Parish, Titusville. The organization will be completed at a meeting to be held in Lakeland August 23 at which time four additional directors will be added to the board and officers will be named.

whether industry is unselfish enough to place the public interest first, thereby most successfully serving its own immediate ends. Signs multiply indicating that industry will accept this challenge in a forward-looking and not a reactionary spirit. If this is so, then I believe the Recovery Act will be a success and will show the way to a new and sounder economic era."

**Agriculture's Record Compares Favorably with Industry's**  
American agriculture has suffered

from the attention focused on its problems. The statistics so often quoted, besides being frequently misleading, give a picture of only the average or even sub-average farmer. "Not enough emphasis has been placed upon the two million or more first-rate business men who run their as successful business enterprises and too much emphasis has been placed upon the three or four million farmers who still see in the soil not a first-class business opportunity but a mode of life, a way of living where any old methods will do," Mr. Bowker asserted.

On the whole agriculture has not fared as badly during the depression in comparison with industry as the agitation over its plight would lead one to think. While farm prices have declined seriously in comparison with the prices of commodities the farmer buys, due to the continued high level of production which the nature of agriculture necessitates, experience as well as the recent trends show that these prices will recover more rapidly than others. Moreover, the figures showing a decline of 57 per cent in farm income since 1929 are not representative, since they disregard "imputed" income from farm products consumed on the farm and other items. A recent survey of 921 corporations showed a net loss of a quarter of a billion dollars between 1929 and 1932, and factory payrolls have declined even more than the slump in farm income, so that, Mr. Bowker feels, industry has in many respects made a worse showing than the farmer.

"To talk everlastingly of the disintegration of agriculture," said Mr. Bowker, "creates a mass psychology toward farming that has tended to depreciate the value of all agricultural investments and to do the farmer irreparable harm."

## Production Control Futile

Measures designed to raise agricultural prices by restricting production, Mr. Bowker believes, are of doubtful practicability. All such plans must face the uncertainties inherent in the nature of farming, for

(See Page 19 for conclusion)



# JUDGE SAYS GRAPEFRUIT CLAUSE IN ARSENIC LAW SHOULD NOT BE ENFORCED

Opponents of the state anti-arsenic law won the first round of their fight last week when Judge H. C. Petteway circuit court judge of Lakeland announced he would issue shortly a temporary injunction restraining Nathan Mayo, commissioner of agriculture, from enforcing sections of the measure relating to grapefruit.

Suit for injunction was brought by the Florida Grapefruit Growers Protective association and several individual growers of Polk, Pinellas, Highlands, Lake and other counties. Arguments in the case were heard last week.

The case will be carried to the state supreme court as attorneys for both sides said last week they would appeal any decision to settle the question definitely.

Discussing the announced order, Judge Petteway said it would hold the anti-arsenic law becomes unconstitutional when enforced in connection with 1931 green fruit law, fixing maturity standards, because it then becomes unreasonable and destructive of the property rights of the complainants.

This conclusion, he said, is justified because, by nature, fruit matures more slowly in some sections of the state than in others.

It was not the intention of the legislature to govern the maturity of fruit, he held. The legislature, itself, the judge continued, precluded any possibility of claiming arsenic-sprayed fruit is injurious to and unfit for human consumption.

The measure was passed during the mediterranean fly campaign.

Judge Petteway said the amount of arsenic required could not render fruit injurious to health, although growers should not apply more than is necessary.

Other sections of the country, he concluded, are flooding the market with sweet grapefruit which matures earlier than the Florida product and prohibiting the use of arsenic to hasten maturity prevents the state's growers from competing in these early markets.

Such prohibition, he said, would seriously injure the industry in Florida and deprive growers of their property without due process of law.

Attorney General Landis represented Mayo in the proceedings.

On the question of whether arsenic sprayed fruit was injurious to public health, both sides presented a number of affidavits.

## THE CITRUS INDUSTRY

### TUNG-OIL TREES

(Continued from page 7.)

produced sufficient nitrogen to equal 1,548 pounds of nitrate of soda. This last named crop would, therefore, appear to have peculiar possibilities as a nitrogen gatherer for the tung-oil trees, since it was grown from a single seedling and it is probable that it will reseed itself from year to year and that the seed may lie dormant through the winter to germinate in the spring.

Twenty-three

While the growing of the tung-oil tree is yet in a more or less experimental stage, everything points to the fact that it will prove a success in the end. Preparations are under way for the establishment of crushing plants that will be essential in a large commercial production. Certainly it is a crop of the greatest importance to States like Mississippi where millions of acres of cut-over lands are lying idle and are not now needed for our staple crops.

## NOW IS A GOOD TIME FOR CITRUS GROWERS



to compare results!

**BECAUSE** Nature has been impartial in bestowing almost ideal growing conditions on all parts of the State this Summer, we invite you to make a comparison of NACO fertilized groves with others in your section.

Growers who have not used NACO Products or Service should compare their groves with those of their neighbors. Compare the condition of the trees and growing fruit and you will have the convincing proof of the soundness of the Common-sense (never radical) NACO Plan.

Fill in and mail the coupon below and we will be glad to have a representative show you NACO groves and to discuss the features and the economy of the NACO Plan. No obligation, of course!

I'll be glad to have your representative show me groves in my section of the State that have been NACO Fertilized and Serviced.

Name \_\_\_\_\_

Address \_\_\_\_\_

**NITRATE AGENCIES COMPANY**  
1401 - 1407 NEW ADDRESS AFTER AUGUST 10TH  
JACKSONVILLE BUILDING  
JACKSONVILLE - FLORIDA





# STRONG RAISES QUESTION ON IMPORTANT PLANT QUARANTINE

(Continued from page 21)

mitting pests into the country."

Mr. Strong outlined "certain fundamentals" which should be observed. "First, I think no soil should be admitted into this country from abroad, and that means that no plants of any kind in soil from any country should come in. The dangers of pest introduction with soil and the impossibility of inspecting soil are too well known to admit of argument. It would seem reasonable and proper to specify the age and size of the various types of plants that should be admitted, basing those limits again on our ability to make competent inspection. Classes of plants that we know are likely to bring in injurious pests from specific localities should be definitely excluded." He spoke of the need for expeditious inspection at ports of entry, and continued, "Except in doubtful cases, when plants have been inspected and admitted and turned over to the consignee, I question the need for any requirement that they be kept in detention for any certain period of time. Rather, why should they not go immediately into such usage as the country desires."

"In closing, Mr. Strong said; "Doubtless these expressions do some violence to the established views of many people sincerely interested only in protecting the agriculture of this country from foreign pests. To these people I present these questions — Has the policy of more or less complete exclusion of plants announced as the underlying principle of Quarantine 37 been, or is likely to be, accomplished. Do not substantial changes seem necessary to put the enforcement of the nursery stock, plant and seed quarantine on a sound, fair, and logical basis? If so can not this be done without additional risk of pest introduction?"

"These expressions also may quite naturally distress those plant producers engaged in the production of those plants now excluded because of determination of their availability in this country. To these people I can only say that it has been consistently pointed out by the Department that the Plant Quarantine Act was passed by Congress and is enforced by the Department for the sole purpose of preventing the entry into this country and the spread within the United States of injurious plant pests."

Mr. Strong also discussed briefly certain phases of domestic quaran-

## THE CITRUS INDUSTRY

tines and suggested that when a Federal quarantine is suspended it is more desirable for the States to cooperate with Federal officers in regulating interstate traffic in inspected plants than it is to impose embargo quarantines.

### A NEW MARKET FOR CITRUS FRUIT

(Continued from Page 20)

quired to be shown on fermenters. The capacity should be shown in wine or ordinary gallons. If the storage tanks have uniform dimensions the capacity per inch must be painted thereon, and the amount of beverage in such storage tanks must be shown thereon at all times. This can be shown in chalk. Further, the factory premises must be used exclusively for the manufacturing purposes.

The manufacturer should, of necessity, provide himself with whatever instruments are necessary to test the juice both before and after fermentation. Otherwise he would never know where he stands unless he employs or frequently consults a chemist. As the amount of alcohol to be developed depends upon the amount of sugars in the fresh juice, a saccharometer should be obtained, and the best and easiest way to test

the amount of alcohol in the finished product is by using an ebulliometer. These two instruments are most essential.

The tax stamps to cover the federal tax of \$5.00 per barrel may be obtained from the Collector of Internal Revenue at Jacksonville, while the state tax of 6c per gallon is paid at intervals of 15 days to the county tax collector.

The row of stumps discussed in this article is not given to discourage, but merely to prevent somebody plunging into this field blindly. The problems involved are not simple, but neither is the problem of what to do with the enormous amount of citrus fruit that never leaves the groves. So far this season some nineteen million boxes of citrus fruit have been sold. If the annual loss is anywhere around 25% of the total crop, this means that at the very lowest estimate five million boxes of fruit might possibly go into such untried channels as is here suggested.

The *Cryptolaemus* ladybeetle has well demonstrated its value in the control of mealybugs, say insect specialists with the Florida Experiment Station.

# JACKSONVILLE

3  
Good  
Hotels

## GEORGE WASHINGTON

300 ROOMS - 300 BATHS  
NEWEST AND FINEST  
Every Known Facility - Garage Directly  
Connecting Lobby - Radio

## MAYFLOWER

300 ROOMS - 300 BATHS  
A BEAUTIFUL HOTEL  
Splendid Facilities - Garage - Radio  
Coffee Shoppe

## FLAGLER

MODERN AS THE BEST  
FREE GARAGE

EVERY CONVENIENCE FOR SUMMER COMFORT  
.. PRICES IN KEEPING WITH THE TIMES ..





ROBERT KLOEPEL - OWNER - DIRECTOR

## FLORIDA CITRUS FRUITS

## AT THE WORLD'S FAIR

(Continued from page 5)

cago maintained and strengthened to the point that many of the registrants will visit the state as tourists and home seekers. Up to date approximately 40,000 names have been sent to the chambers of commerce with as many more awaiting compilation and mailing.

That Florida is not inclined to "hide its light under a bushel" is evidenced by the fact that not only are its entertainment programs in every Chicago Newspaper every day as well as on every "Events" bulletin but it also is on the air from two to five times every day. It is not unusual for visitors to inquire at the information desk for the hours at which the Orange Blossom Quartet or the Indian Tenor will sing and then add that they had heard one or both over the radio at their home town several days or weeks before and liked them so much that they wanted to hear them at close range.

Following agreement made with those Florida counties contributing to the cost of the Florida exhibit at the world's fair, county days are being celebrated, with special exhibits, liberal distribution of literature, lectures describing the particular exhibits of the county celebrating, and broadcasts over radio.

The first county to stage a special day was Highlands, with a liberal display of the products of the county in Florida Hall and the broadcasting of a musical program over WLS, the Prairie Farmer's 50,000 watt station, with a brief speech by County Agent Alsmeyer, interspersed, in the afternoon.

Dade county combined with the city of Miami in a joint celebration, with the broadcasting of a special program, the oratorical effort being made by Carl T. Hoffman, the personal representative of Mayor Sewell.

Broward county made a wonderful display of tropical and exotic fruits when its day was celebrated, and maintained reception committees not only in Florida Hall but also in the Florida Orange Grove, the latter because of the fact that the trees in the grove were brought from Brevard county. No attempt was made to broadcast the program, but hundreds of men and women from Chicago and vicinity who are in the habit of wintering in Fort Lauderdale, Hollywood, Dania and other Broward county resorts, were on hand to act as hosts and hostesses

## THE CITRUS INDUSTRY

and as lecturers at the various booths where Broward county products were displayed.

St. Lucie county celebrated with a display of products and a radio program over WWAE, with Mr. and Mrs. Ed O. Dennison as host and hostess and the Orange Blossom Quartet and the Florida Indian tenor singer furnishing the musical entertainment. Before this story appears in the Florida newspapers, Brevard county will have had its day with Karl Lehmann substituting for the chairman of the Brevard board of county commissioners at the microphone. Mr. Lehmann wedged his radio talk in between songs by the Quartet and the Indian tenor.

Beginning Sunday, Aug. 6, a

group of central Florida counties — Volusia, Seminole, Marion, Orange and Lake in the order named, will celebrate their respective days each each having secured time over WLS the Prairie Farmer radio station.

## MULCHING SLOWS UP

## DECOMPOSITION OF

## CITRUS COVER CROP

(Continued from page 9)

plots was slightly lowered, while the lime content on the Natal grass plots was definitely lower. The potash content was increased with both cover crops, but it was increased more in the Natal grass plots. Since Cro-talaria itself is high in lime and low in potash, and comparatively Natal grass is just the opposite.

A ROOM AND A BATH  
A DOLLAR AND A HALF

—AT—

## "Jacksonville's Leading Hotel"



## THE SEMINOLE

CHARLIE GRINER, MANAGER

## JACKSONVILLE, FLORIDA

A human, home-like institution where you will find your individual comfort and entertainment a matter of great importance. A steel fireproof building located in the heart of the city.

Every Room with Combination Tub and Shower Bath, Radio, Electric Ceiling Fan, Slat Door for Summer Ventilation, Comfortable Beds with Mattresses of Inner Spring Construction and Individual Reading Lamps.

## RATES

22 Rooms with Private Bath	\$1.50—Single
26 Rooms with Private Bath	2.00—Single
40 Rooms with Private Bath	2.50—Single
40 Rooms with Private Bath	3.00—Single
24 Rooms with Private Bath	3.50—Single
10 Sample Rooms with Private Bath	4.00—Single

SLIGHT INCREASE FOR DOUBLE OCCUPANCY

## REDUCED CHARGES 111

Local Phone Calls	5c
Dressing Men's Suit	35c
Dry Cleaning Men's Suit	75c
Laundry	Same As City Laundry Prices
Coffee Shop	Extremely Moderate Charges



## THE HEALTH VALUE

## OF CITRUS FRUITS

The United States Department of Agriculture, through Dr. F. C. Blanck principal chemist in charge of the food research division of the Bureau of Chemistry and Soils, recently summarized some of the beneficial effects to be obtained from a liberal use of citrus fruits in the diet. Dr. Blanck's findings are appended below:

In order to satisfactorily meet all nutritional requirements a food must supply material in sufficient quantity and satisfactory quality to provide for the growth and maintenance of body tissues, the normal functioning of all physiological processes, and the necessary energy for the activities of life. As far as known, these requirements are provided by protein, fat, carbohydrate, mineral salts and vitamins.

## Vitamins Are Essential

About 20 years ago the discovery of the first of a new group of accessory food substances, known as vitamins, completely revolutionized our views on nutritional requirements. These substances, present in small amounts, have for the most part defied the skill of the chemist in determining their exact chemical nature, and yet experiment after experiment has absolutely and conclusively proven that, in their absence, proper growth will take place, the body resistance is lowered and man becomes susceptible to attack by a number of diseases. These mysterious substances are named after six letters of the alphabet and are known as vitamins A, B, C, D, E and G. Each one of these is specific in its action and differs from the other in the role which it plays in our life activity. Fruits and vegetables are among the best natural sources of vitamins.

Prominent among these are the citrus fruits. Although oranges and grapefruit contain vitamins A and B, their chief value lies in their high vitamin C content. This vitamin, also known as the antiscorbutic vitamin, is active in the cure and prevention of scurvy and also plays a part in bone and teeth development. From many points of view, orange juice is most valuable antiscorbutic. It has the highest vitamin C content of any of our fruits, it is easily and conveniently prepared, and is highly palatable. Furthermore oranges are relatively cheap and plentiful and so this fruit is of great importance in clinical medicine. Vitamin C is contained mostly in the juice, the orange

## THE CITRUS INDUSTRY

containing somewhat more than the grapefruit. Infants fed many of artificial food mixtures are likely to develop scurvy. The addition of orange juice to avert this difficulty is quite generally practiced. One-half ounce daily of orange juice is considered the antiscorbutic dose.

(Continued next month.)

## "REPRESENTATIVE OF EVERY CITRUS INTEREST"

"We are eager at all times to go over The Citrus Industry, that exclusive specialized monthly citrus magazine, published at Tampa, Fla., which points with pardonable pride to the fact that it is "Representative of every interest," and "Representing no special interest" in the citrus industry of Florida. If we may be

permitted to say so, the foregoing is no idle boast, for we have found The Citrus Industry invariably broad and constructive on all fundamental problems affecting the citrus industry as a whole."—The Valley Farmer and South Texas Grower.

Mildew thrives in dark, damp places. Keep clothes dry and well-aired to prevent it.

## Apple Candy Pie

Fill deep pie dish with layers of sliced apple sprinkled with cinnamon, sugar and butter. Mix 3-4 cup flour, 1 cup brown sugar, ½ cup butter, and spread on top of apples. Bake until apples are tender. Serve with whipped cream or ice cream.

## CLASSIFIED

## Advertisements

The rate for advertisements of this nature is only five cents per word for each insertion. You may count the number of words you have, multiply it by five, and you will have the cost of the advertisement for one insertion. Multiply this by the total number of insertions desired and you will have the total cost. This rate is so low that we cannot charge classified accounts, and would, therefore, appreciate a remittance with order. No advertisement accepted for less than 50 cents.

FANCY ABAKKA pineapple plants. R. A. Saeger. Ankonas, Florida.

PUREBRED PULETS FOR SALE—White Leghorns and Anconas ready to ship. Barred Rocks and R. I. Reds shortly. Several hundred yearling White Leghorn hens now laying 70%. Write or wire for prices. C. A. Norman, Dr. 1440, Knoxville, Tenn.

LAREDO SOY BEANS, considered free from nematode, excellent for hay and soil improvement. Write the Baldwin County Seed Growers Association, Loxley, Alabama, for prices.

WANTED—To hear from owner having good farm for sale. Cash price, particulars, John Black, Chippewa Falls, Wisconsin.

BUDDED trees new Florida commercial lemon, proven, thin skinned, juicy, scab immune. Also rough lemon, sour orange and Cleopatra seed and liningout seedlings. DeSoto Nurseries, DeSoto City, Fla.

SEND no money. C. O. D. Cabbage, Onion and Collard plants. All varieties 500—60c; 1,000—95c; 5,000 and over 75c per 1,000. Standard Plant Co., Tifton, Ga.

C. O. D. Frostproof cabbage, onion and collard plants. All varieties 500—60c; 1,000—95c. Farmers Plant Co., Tifton, Ga.

DUSTER — Niagara, Air-Cooled engine Steel truck-mounted. Nearly new. Half price. Samuel Kidder, Monticello, Fla.

HIGH BLOOD-PRESSURE easily, inexpensively overcome, without drugs. Send address. Dr. J. B. Stokes, Mohawk, Fla.

August, 1933

SEEDS—ROUGH LEMON, SOUR ORANGE, CLEOPATRA. Pure, fresh, good germination. Also seedlings lineup size. De Soto Nurseries, DeSoto City, Fla.

DETAILED SOIL Analysis, Interpretations. \$2.50. Soil Laboratory, Frostproof, Florida.

RAISE PIGEONS—Frost and pleasure. Illustrated descriptive catalogue postage six cents. Vrana Farms, Box 314a, Clayton, Missouri.

CROTALARIA SPECTABILIS—Seed for sale. New crop, well cured, bright and clean. Price 25c per pound in 100 pound lots and over, 30c per pound in less quantities. f. o. b. Hastings, Bunnell, Lowell and San Antonio, Florida. F. M. LEONARD & COMPANY, Hastings, Florida.

SCENIC HIGHWAY NURSERIES has a large stock of early and late grapefruit and oranges. One, two and three year buds. This nursery has been operated since 1883 by G. H. Gibbons, Waverly, Fla.

CABBAGE, Onion and Collard plants. All varieties now ready. Postpaid 500 for \$1.00; 1000 \$1.50. Express \$1.00 per 1,000; 5,000 and over 75c per 1,000. Satisfaction guaranteed. F. D. Fulwood, Tifton, Ga.

NEW COMMERCIAL lemon for Florida, the Perrine; proven. All residents need yard trees, keeping Florida money at home. Booking orders for budded stock for winter delivery. DeSoto Nurseries, DeSoto City, Fla.

WANTED—To hear from owner of land for sale. O. Hawley, Baldwin, Wis.

SATSUMA BUDWOOD from Bearing Trees. Hills Fruit Farm, Panama City, Fla.

SEED—Rough lemon, sour orange, cleopatra. New crop from type true parent trees. Also thrifty seedlings. DeSoto Nurseries, De Soto City, Florida.

## Shipping Departments

For Sale—One used "Marsh" Stencil Cutting Machine; cuts half-inch letters. Also have ink pot, brush and liberal supply of blank stencils. Machine guaranteed in best of condition and to operate in every way comparable with a new machine. Price, complete with accessories as listed, f.o.b. Tampa, \$50.

THE DURO CO.  
1219 Florida Ave., Tampa, Fla.